



FEDERAL AVIATION ADMINISTRATION
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From: Dr. William K. Krebs, (AAR-100) Aviation Maintenance Human Factors
Program Manager

To: Bill O'Brien (AFS-300)

Subj: Review Amateur-Built Aircraft Accident/Incidents Execution Plan

Ref: (a) Airworthiness TCRG March 5-6, 2002 meeting minutes
(b) Aviation maintenance requirement entitled "Review Amateur-Built Aircraft
Accident/Incidents"

- 1) Per reference (a), the Airworthiness TCRG ranked the "Review Amateur-Built Aircraft Accident/Incidents" (ref: b) as the number three FY02 aviation maintenance human factors priority. The requirement's objective is to determine the causal factors (e.g., human factors, construction, operation, maintenance and other factors that cause accidents) surrounding the high accident and incident rate for amateur-built aircraft per 100,000 hours of operation. This research will then be compared against similar General Aviation accident and incidents.
- 2) The project will be executed as follows:

Phase I tasks:

- i. Determine frequency and types of causal factors attributable to human factors, construction, operation, maintenance, and other factors in amateur-built aircraft accidents and incidents.
- ii. Compare this list to similar General Aviation maintenance-related accident and incidents.
- iii. Defined milestones (if possible, milestones will be determined)
 - Note: a grantee is not responsible to adhere to defined milestones.
- iv. Quarterly (December, March, July, and September) research progress status reports

- Informal e-mail reports from the program manager aviation maintenance human factors to Bill O'Brien.
- v. FY03 annual report summarizing year's activities by grantee or contractor. This annual report including other human factors aviation maintenance projects sponsored by AFS-300 will be electronically submitted to AFS-300.
 - Grantee/contractor will submit an annual report using AAR-100's Productivity Report website (<http://www.hf.faa.gov/report/>) to the AAR-100 aviation maintenance human factors program manager.

Phase II tasks:

- i. Determine frequency and types of causal factors attributable to human factors, construction, operation, maintenance, and other factors in general aviation accidents and incidents.
- ii. Compare this list to similar General Aviation accident and incidents.
- iii. Defined milestones (if possible, milestones will be determined)
 - Note: a grantee is not responsible to adhere to defined milestones.
- iv. Quarterly (December, March, July, and September) research progress status reports
 - informal e-mail reports from the program manager aviation maintenance human factors to Bill O'Brien.
- v. FY04 annual report summarizing year's activities by grantee or contractor. This annual report including other human factors aviation maintenance projects sponsored by AFS-300 will be electronically submitted to AFS-300.
 - Grantee/contractor will submit an annual report using AAR-100's Productivity Report website (<http://www.hf.faa.gov/report/>) to the AAR-100 aviation maintenance human factors program manager.

Deliverables:

- i. Final report containing
 - a. Quantitative data identifying patterns of causal factors in amateur-built aircraft accidents and incidents.
 - b. Recommendations in reducing amateur-built aircraft accidents and incidents by changing maintenance-related tasks and/or procedures.
 - c. Quantitative data identifying patterns of causal factors in all types of General Aviation accident and incidents.
 - d. Recommendations in reducing general aviation accidents and incidents by changing tasks and/or procedures.

- ii. Final Report formatted to permit development of appropriate guidance or Advisory Circular material by AFS-300
 - a. AFS-300 is responsible in submitting defined format to the program manager for aviation maintenance human factors by January 2004.

Schedule:

Phase I Tasks: FY02/FY03

Phase II Tasks: FY03/FY04

- Final report due September 2004